WHAT IS CLAIMED IS:

1. A system for speech processing, comprising:
speech data generated from one or more speech sources;
an enhanced phone set; and
a transcription generated by a transcription process that selects appropriate phones from said enhanced phone set to represent said speech data.

2. The system of claim 1, further comprising a phone dataset that includes said speech data and said transcription.

3. The system of claim 2, wherein said phone dataset is utilized in training a speech recognizer.

4. The system of claim 2, wherein said phone dataset is utilized in building a phonetic dictionary.

5. The system of claim 2, further comprising transformation rules applied to said phone dataset to produce a transformed phone dataset, said transformed phone dataset being for use in training a speech recognizer.

6. The system of claim 2, further comprising transformation rules applied to said phone dataset to produce a transformed phone dataset, said transformed phone dataset being for use in building a phonetic dictionary.

7. The system of claim 1, where said enhanced phone set includes a TIMIT base-phone set and an extended base-phone set.

8. The system of claim 7, wherein said extended base-phone set includes base-phones for representing one of a glottal stop variation, a multiple burst release, a fricative consonant closure, a vowel velarization, a vowel lateralization, an R-coloring, a glide loss, an R-deletion, a labio-velar fricative, and an articulator noise.

9. The system of claim 7, wherein said enhanced phone set includes acoustic-phonetic symbols, said acoustic-phonetic symbols being utilized in said transcription process to represent acoustic-phonetic processes of said speech data.

10. The system of claim 9, wherein said enhanced phone set further includes connectors used in said transcription process to connect said acoustic-phonetic symbols to base-phones affected by acoustic-phonetic processes, thereby producing composite-phones.

11. The system of claim 10, wherein said connectors indicate how and where said acoustic-phonetic processes affect said base-phones.

12. The system of claim 11, wherein said connectors include a character ">" that is placed to the left of one of said base-phones to indicate that one of said acoustic-phonetic processes affects a beginning of said one of said base-phones.

13. The system of claim 12, wherein said character ">" is placed to the left of one of said composite-phones to indicate that one of said acoustic-phonetic processes affects a beginning of said one of said composite-phones.

14. The system of claim 11, wherein said connectors include a character "<" that is placed to the right of one of said base-phones to indicate that one of said acoustic-phonetic processes affects an ending of said one of said base-phones.

15. The system of claim 14, wherein said character "<" is placed to the right of one of said composite-phones to indicate that one of said acoustic-phonetic processes affects an ending of said one of said composite-phones.

16. The system of claim 11, wherein said connectors include a character "=" that is placed to the right of one of said base-phones to indicate that one of said acoustic-phonetic processes affects an entirety of said one of said base-phones.

17. The system of claim 16, wherein said character "=" is placed to the right of one of said composite-phones to indicate that one of said acoustic-phonetic processes affects an entirety of said one of said composite-phones.

18. The system of claim 11, wherein said connectors include a character "^" that is placed to the right of one of said base-phones to indicate that one of said acoustic-phonetic processes occurred completely within said one of said base-phones.

19. The system of claim 18, wherein said character "^" is placed to the right of one of said composite-phones to indicate that one of said acoustic-phonetic processes occurred completely within said one of said composite-phones.

20. The system of claim 9, wherein said acoustic-phonetic content represented by said acoustic-phonetic symbols includes one of a nasalization, a glottalization variance, a breathiness, a labialization, a palatalization, a voicing, a devoicing, a voiced frication, a low frequency voiceless frication, a high frequency voiceless frication, an epenthetic vowel, a murmur, an air puff, a burst quality, an approximation, an absence of a burst/release, and a tongue click.

21. The system of claim 5, wherein said transformation rules include merge-type transformation rules that combine two adjacent phones in said phone dataset into a single phone selected from said enhanced phone set.

22. The system of claim 5, wherein said transformation rules include split-type transformation rules that separate one phone in said phone dataset into two different phones selected from said enhanced phone set.

23. The system of claim 5, wherein said transformation rules include replace-type transformation rules that replace one phone in said phone dataset with a different phone selected from said enhanced phone set.

24. The system of claim 5, wherein said transformation rules include change in context-type transformation rules that change one phone in said phone dataset to a different phone selected from said enhanced phone set depending on context.

25. A method for speech processing, comprising the steps of:
generating speech data from one or more speech sources;
providing an enhanced phone set; and
producing a transcription using a transcription process that selects appropriate phones from said enhanced phone set to represent said speech data.

26. The method of claim 25, further comprising the step of combining said speech data and said transcription to produce a phone dataset.

27. The method of claim 26, wherein said phone dataset is utilized in training a speech recognizer.

28. The method of claim 26, wherein said phone dataset is utilized in building a phonetic dictionary.

29. The method of claim 26, further comprising the step of applying transformation rules said phone dataset to produce a transformed phone dataset, said transformed phone dataset being for use in training a speech recognizer.

30. The method of claim 26, further comprising the step of applying transformation rules to said phone dataset to produce a transformed phone dataset, said transformed phone dataset being for use in building a phonetic dictionary.

31. The method of claim 25, where said enhanced phone set includes a TIMIT base-phone set and an extended base-phone set.

32. The method of claim 31, wherein said extended base-phone set includes base-phones for representing one of a glottal stop variation, a multiple burst release, a fricative consonant closure, a vowel velarization, a vowel lateralization, an R-coloring, a glide loss, an R-deletion, a labio-velar friacative, and an articulator noise.

33. The method of claim 31, wherein said enhanced phone set includes acoustic-phonetic symbols, said acoustic-phonetic symbols being utilized in said transcription process to represent acoustic-phonetic processes of said speech data.

34. The method of claim 33, wherein said enhanced phone set further includes connectors used in said transcription process to connect said acoustic-phonetic symbols to base-phones affected by acoustic-phonetic processes, thereby producing composite-phones.

35. The method of claim 34, wherein said connectors indicate how and where said acoustic-phonetic processes affect said base-phones.

36. The method of claim 35, wherein said connectors include a character ">" that is placed to the left of one of said base-phones to indicate that one of said acoustic-phonetic processes affects a beginning of said one of said base-phones.

37. The method of claim 36, wherein said character ">" is placed to the left of one of said composite-phones to indicate that one of said acoustic-phonetic processes affects a beginning of said one of said composite-phones.

38. The method of claim 35, wherein said connectors include a character "<" that is placed to the right of one of said base-phones to indicate that one of said acoustic-phonetic processes affects an ending of said one of said base-phones.

39. The method of claim 38, wherein said character "<" is placed to the right of one of said composite-phones to indicate that one of said acoustic-phonetic processes affects an ending of said one of said composite-phones.

40. The method of claim 35, wherein said connectors include a character "=" that is placed to the right of one of said base-phones to indicate that one of said acoustic-phonetic processes affects an entirety of said one of said base-phones.

41. The method of claim 40, wherein said character "=" is placed to the right of one of said composite-phones to indicate that one of said acoustic-phonetic processes affects an entirety of said one of said composite-phones.

42. The method of claim 35, wherein said connectors include a character "^" that is placed to the right of one of said base-phones to indicate that one of said acoustic-phonetic processes occurred completely within said one of said base-phones.

43. The method of claim 42, wherein said character "^" is placed to the right of one of said composite-phones to indicate that one of said acoustic-phonetic processes occurred completely within said one of said composite-phones.

44. The method of claim 33, wherein said acoustic-phonetic content represented by said acoustic-phonetic symbols includes one of a nasalization, a glottalization variance, a breathiness, a labialization, a palatalization, a voicing, a devoicing, a voiced frication, a low frequency voiceless frication, a high frequency voiceless frication, an epenthetic vowel, a murmur, an air puff, a burst quality, an approximation, an absence of a burst/release, and a tongue click.

45. The method of claim 29, wherein said transformation rules include merge-type transformation rules that combine two adjacent phones in said phone dataset into a single phone selected from said enhanced phone set.

46. The method of claim 29, wherein said transformation rules include split-type transformation rules that separate one phone in said phone dataset into two different phones selected from said enhanced phone set.

47. The method of claim 29, wherein said transformation rules include replace-type transformation rules that replace one phone in said phone dataset with a different phone selected from said enhanced phone set.

48. The method of claim 29, wherein said transformation rules include change in context-type transformation rules that change one phone in said phone dataset to a different phone selected from said enhanced phone set depending on context.

49. A system for speech processing, comprising:

means for generating speech data;

means for providing an enhanced phone set; and

means for producing a transcription using a transcription process that selects appropriate phones from said enhanced phone set to represent said speech data.

50. A computer-readable medium comprising program instructions for speech processing, by performing the steps of:

generating speech data from one or more speech sources;

providing an enhanced phone set; and

producing a transcription using a transcription process that selects appropriate phones from said enhanced phone set to represent said speech data.